

10/594075

Docket No.: 31978-235608  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Svarovsky et al.

Art Unit: Not Yet Assigned

Application No: Not Yet Assigned

Examiner: Not Yet Assigned

Confirmation No: Not Yet Assigned

Filed: Concurrently Herewith

Atty. Docket No: 31978-235608

For: CARBOHYDRATE-ENCAPSULATED  
QUANTUM DOTS FOR BIOLOGICAL  
IMAGING

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Customer No:

**45323**

PATENT TRADEMARK OFFICE

**INFORMATION DISCLOSURE STATEMENT (IDS)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement accompanies the new patent application submitted herewith.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SH/

Application No.: Not Yet Assigned

In accordance with 37 CFR 1.98(a)(2)(ii), Applicant has not submitted copies of U.S. patents and U.S. patent applications. Applicant submits herewith copies of foreign patents and non-patent literature in accordance with 37 CFR 1.98(a)(2).

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 22-0261, under Order No. 31978-235608.

Dated: September 22, 2006  
DC2/787590

Respectfully submitted,

By 

Michael A. Gollin

Registration No.: 31,957

VENABLE LLP

P.O. Box 34385

Washington, DC 20043-9998

(202) 344-4000

(202) 344-8300 (Fax)

Attorney/Agent For Applicant

Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	Not Yet Assigned
				Filing Date	Concurrently Herewith
				First Named Inventor	Sergei A. Svarovsky
				Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
Sheet	1	of	3	Attorney Docket Number	31978-235608

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	AA*	US-2005/0214536-A1	09-29-2005	Schrier et al.	
	AB*	US-2005/0059031-A1	03-17-2005	Bruchez et al.	
	AC*	US-2004/0247517-A1	12-09-2004	Zehnder et al.	
	AD*	US-2004/0197816-A1	10-07-2004	Empedocles et al.	
	AE*	US-2004/0178338-A1	09-16-2004	Empedocles et al.	
	AF*	US-2004/0171039-A1	09-02-2004	Bruchez et al.	
	AG*	US-2004/0166505-A1	08-26-2004	Bruchez et al.	
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	AW	US 2003/0113709-A1	06-19-2003	Alivisatos et al.	
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	AB1	US 2002/0127224-A1		Chen	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	† <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature	/Shafiqul Haq/	Date Considered	11/16/2010
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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /SH/

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Sheet	2	of	3	Attorney Docket Number	31978-235608

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>	
	CA	TAMURA et al., "Synthesis of Hydrophilic Ultrafine Nanoparticles Coordinated With Carbohydrate Cluster", <i>Journal of Carbohydrate Chemistry</i> , Vol. 21, No. 5, 2002 (pp. 445-449).		
	CB	SVAROVSKY et al., "Highly Efficient Preparation of Tumor Antigen-Containing Glycopeptide Building Blocks from Novel Pentenyl Glycosides", <i>Carbohydrate Research</i> 338(2003) Elsevier Ltd. (pp. 1925-1935).		
	CC	AKERMAN et al., "Nanocrystal Targeting In Vivo", <i>PNAS</i> Vol. 99 No. 20, Oct. 1, 2002 (pp. 12617-12621).		
	CD	www.qdots.com/new/technology, Quantum Dot Corporation, Oct. 21, 2003 (15 pages).		
	CE	Joseph J. BARCHI, JR. & Sergei SVAROVSKY, "Glycononotechnology: Construction and Properties of Sugar/Peptide-Bearing Nanoparticles", slide presentation Boston, MA, May 5, 2003 (19 pages).		
	CF	CHAN et al., "Luminescent Quantum Dots for Multiplexed Biological Detection and Imaging", <i>Current Opinion in Biotechnology</i> 2002, Vol. 13, Elsevier Science, Ltd. (pp 40-46).		
	CG	DUBERTRET et al., "In Vivo Imaging of Quantum Dots Encapsulated in Phospholipid Micelles", <i>SCIENCE</i> Vol. 298, Nov. 29, 2002 (pp. 1759-1762).		
	CH	LARSON et al., "Water-Soluble Quantum Dots for Multiphoton Fluorescence Imaging in Vivo", <i>SCIENCE</i> Vol. 300, May 30, 2003 (pp. 1434-1436).		
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	CM	WESTENHOFF, "Quantum Dot on a Rope", <i>J. AM. CHEM. SOC.</i> Vol. 124, No. 11, 2002 (pp. 2448-2449).		
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	CO	LAWLESS et al., "Bifunctional Capping of CdS Nanoparticles and Bridging to TiO <sub>2</sub> " <i>J. Phys. Chem.</i> , Vol. 99, June 1, 1995 (pp. 10329-10335).		
	CP	CHEN, "Synthesis of Clyconanospheres Containing Luminescent CdSe-ZnS Quantum Dots", <i>Nano Letters</i> , Vol. 3, No. 5, 2003 (pp. 581-584).		
	CQ	PCT/ISA/220 & PCT/ISA/210 (International Search Report) from PCT/US03/34897, mailed August 20, 2004.		
	CR	PCT/ISA/220 & PCT/ISA/210 & PCT/ISA/237 (International Search Report & Written Opinion) from PCT/US2005/009344, mailed 21 December 2005.		
	CS	WU et al., "Immunofluorescent Labeling of Cancer Marker Her2 and Other Cellular Targets with Semiconductor Quantum Dots", <i>Nature Biotechnology</i> , Vol. 21, January, 2003 (pp. 41-46).		
	CT	OTSUKA et al., "PEGylated Nanoparticles for Biological and Pharmaceutical Applications", <i>Advanced Drug Delivery Reviews</i> , Vol. 55, 2003 (pp. 403-419).		
	CU	GAO, "In Vivo Cancer Targeting and Imaging With Semiconductor Quantum Dots", <i>Nature Biotechnology</i> , Vol. 22, No. 8, August, 2004 (pp. 969-976) - [published online July 18, 2004].		

Examiner Signature	/Shafiqui Haq/	Date Considered	11/16/2010
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IAP16 Rec'd PCT/PTO 22 SEP 2006  
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PTO/SB/08a/b (07-06)

Approved for use through 09/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.  
DC2/788014

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